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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,983	11/13/2003	Boris Ginzburg	P-5907-US	6761
49444	7590	07/13/2007	EXAMINER	
PEARL COHEN ZEDEK LATZER, LLP			SHAN, APRIL YING	
1500 BROADWAY, 12TH FLOOR			ART UNIT	PAPER NUMBER
NEW YORK, NY 10036			2135	
MAIL DATE		DELIVERY MODE		
07/13/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/705,983	GINZBURG ET AL.
	Examiner	Art Unit
	April Y. Shan	2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 May 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-35 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant's amendment, filed 01 May 2007, has been received, entered into the record, respectfully and fully considered.
2. As a result of the amendment, claims 1, 11 and 17-35 have been amended. Claims 1-35 are now presented for examination.
3. Any objections/rejections not repeated below for record are withdrawn due to Applicant's amendment.

Specification

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use. **The current applicant does not have Brief Summary of the invention. Please add Brief summary of the invention to the specification. Please see bolded item (g) below.**

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.**

- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject

matter of the claimed invention. This item may also be titled "Technical Field."

- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation.

There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

5. The abstract of the disclosure is objected to because in paragraph [0032],
“..between the first station the second station and the access point” should be
“..between the first station, the second station and the access point”. Correction is
required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per **claims 1, 11, 18, 25 and 32**, “**sending secured direct link...according to a selected encryption method**” is being recited. The examiner respectfully and carefully reviewed the Applicant’s original disclosure, the Applicant disclosed in par. [0020], “**...generate the pair-wise keys according to a selected encryption method**”. The examiner finds no support in the original disclosure about “**sending secured direct link protocol message...according to a selected encryption method**”. Further, “**exchanging two or more secured direct link protocol messages between the access point and a first station of the WLAN and between the access point and a first station of the WLAN and between the access point and a second station of the WLAN**” is not clearly defined/supported in the original disclosure. Applicant is required to point out where this amended claim limitation is in the original disclosure and please note **no new matter should be added** in the original disclosure in addressing this claim rejection.

As per **claims 32-35**, amended claim limitation “**executed by an access point..**” is not clearly defined/supported in the original disclosure. Applicant is required to point out where this amended claim limitation is in the original disclosure and please note **no new matter should be added** in the original disclosure in addressing this claim rejection.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

8. Claims 1-10 and 32-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per **claims 1 and 32**, the amended claim limitation "exchanging two or more secured direct link protocol messages between the access point and a first station of the WLAN and between the access point and a second station of the WLAN" in claims 1 and 32 is not enabling. According to par. [0007] and steps 400-420 in fig. 4 of the Applicant's specification, it discloses "STA1 sends SDLP request to STA2 VIA AP, STA2 SENDS SDLP RESPONSE TO AP, AP SENDS TO STA1 AND STA2 TRANSMISSION RATES AND ENCRYPTION METHOD" and in par. [0025], the Applicant discloses "...in the SDLP message, STA1 may be referred to and/or defined as an initiator of the SDLP, STA2 may be referred and/or defined as a recipient, and the AP may be referred and/or defined as a mediator". From the Applicant's original specification, one of ordinary skill in the art will conclude that the station 1 and station 2 communicates via AP in order to establish direct link between the first station and the second station. But in claim 1, the Applicant recites, "exchanging two or more secured direct link protocol messages between the access point and a first station of the WLAN and between the access point and a second station of the WLAN". Please note in the amended claim, station 1 and station 2 only exchange messages with the AP and not communicate to each other via AP, then it is impossible to "establishing said secured direct link between the first station and the second station" as recited in the claim. *In re Wands*, 858 F. 2d 731, 737, 8 USPQ2D 1400, 1404 (Fed. Cir. 1998). Therefore, the

amended claim limitation in claim 1 is contradicted with the Applicant's original disclosure, which is not enabling.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-35 and rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **claims 1, 11, 18, 25 and 32**, "sending secured direct link protocol messages that include par-wise keys...to a selected encryption method". It is unclear whether this is intended to be the same as or different from "two or more secured direct link protocol messages" recited in the claims.

As per **claim 32**, the amended body of the claim appears to be contradicted with the preamble, "an article". The amended body of the claim recites method of steps. Is the Applicant's intention to claim an article or a method?

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whelan et al. (U.S. Patent No. 6,965,674) in view of Wentink et al. (U.S. Pub. No. 20050135304).

As per **claim 1**, Whelan et al. discloses a method comprising:
establishing a secured (“improved security of wireless local area networks” – e.g. col. 1, line 59) direct link between a first station and a second station (“The MUs may

communicate on a peer-to-peer basis" – e.g. col. 1, lines 30-31 and col. 4, lines 11-14) of a wireless local area network ("Wireless Local Area Network (WLAN) security" – e.g. col. 1, lines 20-21) by exchanging/sending two or more secured direct link protocol messages ("The IEEE 802.11 specifications employ the Wired Equivalent Privacy (WEP) protocol to encrypt and decrypt the packets transmitted on the WLAN" – e.g. col. 1, lines 39 - 41) between an access point ("one or more base stations or Access Point (AP)" – e.g. col. 1, lines 27-28) and the first station ("one or more mobile stations or Mobile Units (MU)" – e.g. col. 1, lines 29-30) and the access point and the second station (e.g. col. 1, lines 27-38 and col. 3, lines 61-65).

establishing a secured ("improved security of wireless local area networks" – e.g. col. 1, line 59) direct link between a first station and a second station ("The MUs may communicate on a peer-to-peer basis" – e.g. col. 1, lines 30-31 and col. 4, lines 11-14) of a wireless local area network ("Wireless Local Area Network (WLAN) security" – e.g. col. 1, lines 20-21)

Whelan et al. does not expressly disclose the secured direct link protocol messages include pair-wise keys according to a selected encryption method.

Wentink et al. discloses the secured direct link protocol messages include pair-wise keys according to a selected encryption method. (e.g. paragraphs [0106], [0109] and [0116]);

Whelan et al. and Wentink et al. are analogous art because they are from the same field of endeavor of secure direct wireless link in WLAN.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate Wentink et al.'s the secured direct link protocol messages include pair-wise keys according to a selected encryption method into Whelan et al.'s method.

The motivation for doing so would have been to "Security via encryption is frequently provided in Wireless Fidelity Protected Access (WPA) or similar environments, such as IEEE 802.11i. Pairwise encryption keys established by WPA or the like may be used to secure the IDLP set up messages...as the entire IDLP Setup Request/Response exchange is protected by the pairwise key between the stations and the access point", as taught by Wentink et al. (paragraph [0116])

Please note the background of the Whelan et al. reference described the direct link on the WLAN as the examiner cited above. The disclosed direct link on the WLAN remains the same through the whole reference of Whelan et al.

As per **claims 2-5**, Whelan et al. – Wentlink et al. discloses a method as applied above in claim 1. Wentink et al. further discloses receiving from the first station a request to establish the secured direct link, wherein the request includes communication rate information and encryption method information and wherein establishing comprises: sending to the second station a message to establish the secured direct link, wherein the message includes communication rate information of the first station and encryption method information of the first station and receiving from the second station a request to establish the secured direct link, wherein the request includes communication rate information and encryption method information

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and wherein establishing comprises: sending to the first station a message to establish the secured direct link, wherein the message includes communication rate information of the second station and encryption method information of the second station (e.g. abstract, paragraph [0106]- [0111], paragraph [0115] – [0116], fig. 18 and fig. 19).

As per **claims 6 and 7**, the combined teachings Whelan et al. and Wentink et al. further disclose selecting a supported communication rate from a set of communication rates (Wentink et al., e.g. paragraphs [0102] and [0106]) and wherein selecting comprises: selecting the supported communication rate from a subset of said set of communication rates, wherein the rates in said subset are supported, at least in part, by both the first station and the second station (Wentink et al. e.g. paragraphs [0102] and [0106]).

As per **claims 8-9**, the combined teachings Whelan et al. and Wentink et al. further disclose comprising:

selecting an encryption method supported by both the first station and the second station (Wentink et al. e.g. paragraphs [0106], [0109] and [0116]);
and

generating pair-wise keys according to the selected encryption method (Wentink et al. e.g. paragraphs [0106], [0109] and [0116]);
and wherein generating comprises:

generating unicast pair-wise keys for encrypting a data packet (Wentink et al. e.g. paragraphs [0107] and [0116] and Whelan et al. – e.g. col. 1, lines 39-41); and generating unicast pair-wise keys for decrypting the data packet (Wentink et al. - e.g. paragraphs [0107] and [0116] and Whelan et al. – e.g. col. 1, lines 39-41).

As per **claim 10**, the combined teachings of Whelan et al. and Wentink et al. further disclose a method as applied above in claim 8. Wentink et al. further discloses wherein selecting the encryption method comprises:

selecting the encryption method from a group of robust security network encryption methods (e.g. paragraph [0116]).

As per **claim 11**, Whelan et al. discloses an apparatus comprising:
a controller to establish a secured direct link between a first station and a second station of wireless local area network by exchanging two or more protocol messages with the first station and the second station (e.g. col. 3, lines 58-65 and col. 4, lines 11-13).

Whelan et al. does not expressly disclose the secured direct link protocol messages include pair-wise keys according to a selected encryption method.

Wentink et al. discloses the secured direct link protocol messages include pair-wise keys according to a selected encryption method. (e.g. paragraphs [0106], [0109] and [0116]);

Whelan et al. and Wentink et al. are analogous art because they are from the same field of endeavor of secure direct wireless link in WLAN.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate Wentink et al.'s the secured direct link protocol messages include pair-wise keys according to a selected encryption method into Whelan et al.'s method.

The motivation for doing so would have been to "Security via encryption is frequently provided in Wireless Fidelity Protected Access (WPA) or similar environments, such as IEEE 802.11i. Pairwise encryption keys established by WPA or the like may be used to secure the IDLP set up messages...as the entire IDLP Setup Request/Response exchange is protected by the pairwise key between the stations and the access point", as taught by Wentink et al. (paragraph [0116])

As per **claims 12-13**, they are rejected using the same rationale as for rejecting claims 2-7.

As per **claim 14**, it is rejected under the same rationale as for rejecting claims 8-10.

As per **claims 15-17**, the combined teachings of Whelan et al. and Wentink et al. further discloses comprising a key generator to generate pair-wise keys according to the encryption method (Wentlink et al. – e.g. paragraphs [0109] and [0116]) and wherein

the controller is able to generate two or more response messages that include a subset of communication rates and the pair-wise keys (Wentink et al., e.g. paragraphs [0102], [0106] and [0115]-[0116]) and further comprising a transmitter to transmit the response messages to the first station and to the second station (Wentlink et al. – e.g. paragraph [0109]).

As per **claim 18**, Whelan et al. discloses an apparatus comprising: receive and transmit two or more protocol messages (e.g. col. 1, lines 39 – 41 and col. 5, lines 5-10); and a controller to establish a secured direct link between a first station and a second station of wireless local area network by exchanging the two or more protocol messages with the first station and the second station (e.g. col. 3, lines 58-65 and col. 4, lines 11-13).

➤ Whelan et al. does not disclose expressly a dipole antenna. However, Whelan et al. discloses access points (col. 1, lines 27-30) and a means is able to receive and transmit two or more protocol messages (e.g. col. 1, lines 39 – 41 and col. 5, lines 5-10). To a person with ordinary skill in the art, the means can be a dipole antenna, the most common WLAN antenna.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate dipole antenna to Whelan et al.'s apparatus.

The motivation of doing so would have been dipole antenna is simple in design and it is a standard equipment on most access points in WLAN.

- Whelan et al. does not expressly disclose the secured direct link protocol messages include pair-wise keys according to a selected encryption method.

Wentink et al. discloses the secured direct link protocol messages include pair-wise keys according to a selected encryption method. (e.g. paragraphs [0106], [0109] and [0116]);

Whelan et al. and Wentink et al. are analogous art because they are from the same field of endeavor of secure direct wireless link in WLAN.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate Wentink et al.'s the secured direct link protocol messages include pair-wise keys according to a selected encryption method into Whelan et al.'s method.

The motivation for doing so would have been to "Security via encryption is frequently provided in Wireless Fidelity Protected Access (WPA) or similar environments, such as IEEE 802.11i. Pairwise encryption keys established by WPA or the like may be used to secure the IDLP set up messages...as the entire IDLP Setup Request/Response exchange is protected by the pairwise key between the stations and the access point", as taught by Wentink et al. (paragraph [0116])

As per **claim 19**, it is rejected using the same rationale as for rejecting claims 2-5.

As per **claim 20**, it is rejected using the same rationale as for rejecting claim 7.

As per **claims 21 and 23**, they are rejected using the same rationale as for rejecting claims 8-9.

As per **claims 22 and 24**, the combined teachings of Whelan et al. and Wentink et al. further discloses comprising a key generator to generate pair-wise keys according to the selected encryption method (Wentlink et al. – e.g. paragraphs [0109] and [0116]) and comprising a transmitter to transmit the response messages to the first station and to the second station (Wentlink et al. – e.g. paragraph [0109]).

As per **claim 25**, Whelan et al. discloses a wireless communication system comprising: an access point that includes a controller to establish a secured direct link between a first station and a second station of wireless local area network by exchanging two or more protocol messages with the first station and the second station (e.g. col. 1, lines 27-38, col. 3, lines 60-65 and col. 4, lines 6-9).

Whelan et al. does not expressly disclose the secured direct link protocol messages include pair-wise keys according to a selected encryption method.

Wentink et al. discloses the secured direct link protocol messages include pair-wise keys according to a selected encryption method. (e.g. paragraphs [0106], [0109] and [0116]);

Whelan et al. and Wentink et al. are analogous art because they are from the same field of endeavor of secure direct wireless link in WLAN.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate Wentink et al.'s the secured direct link protocol messages include pair-wise keys according to a selected encryption method into Whelan et al.'s method.

The motivation for doing so would have been to "Security via encryption is frequently provided in Wireless Fidelity Protected Access (WPA) or similar environments, such as IEEE 802.11i. Pairwise encryption keys established by WPA or the like may be used to secure the IDLP set up messages...as the entire IDLP Setup Request/Response exchange is protected by the pairwise key between the stations and the access point", as taught by Wentink et al. (paragraph [0116])

As per **claim 26**, it is rejected using the same rationale as for the rejecting claims 2-5.

As per **claim 27**, it is rejected using the same rationale as for the rejecting of claim 7.

As per **claims 28 and 30**, they are rejected using the same rationale as of rejecting claims 8 and 16.

As per **claims 29 and 31**, they are rejected using the same rationale as for rejecting claims 22-24.

As per **claims 32-35**, the combined teachings of Whelan et al. and Wentink et al. disclose the claimed method of steps as applied above in claims 1-4. Therefore, the combined teachings of Whelan et al. and Wentink et al. disclose the claimed instructions stored in a storage medium for carrying out the method of steps.

Response to Arguments

14. Applicant's arguments filed 1 May 2007 have been respectfully and fully considered but they are not persuasive.
15. The amendment to claims 1, 11, 18, 25 and 32 necessitate additional 112 (1st) and (2nd) rejections for claims 1-35.

16. Applicant's arguments are summarized as:

A. On page 11 of the remark, the Applicant argues "...a brief summary to be optional, and in the case of a short application...a brief summary may be found in the whole of the specification", the examiner respectfully disagrees.

First, the examiner respectfully points out the Office is currently using MPEP 8th edition and what the Applicant cited is **not** found under MPEP 8th edition.

Second, the examiner respectfully points out in MPEP § 608.01(d), "A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention **rather than the disclosure as a whole**".

Therefore, the Applicant's argument that "a brief summary may be found in the whole of the specification" is contrary to what MPEP § 608.01(d) states.

Examiner again requests the Applicant to submit "Brief Summary of the Invention" and also please note no new matter is allowed to be added to the "Brief Summary of the Invention".

B. Applicant's argument with respect to independent claims 1, 11, 25 and 32 have been considered but are moot in view of the new ground(s) of rejection. Therefore, amended claims 1, 11, 25 and 31 recite "secured direct link protocol message that include pair-wise keys to the first and second stations according to a selected encryption method" are addressed in the new grounds of rejection under § 103, above.

C. The Applicant argues "Wentink does not teach or disclose establishing by an access point... establishing a secured direct link by an access point..." on page 15 of the remark, the examiner respectfully disagrees.

First, the examiner respectfully points out "establishing a secured direct link by an access point' is in the preamble of the amended claims. The Applicant is respectfully reminded that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Second, in the body of the claim, it recites “thereby establishing said secured direct link between the first station and the second station”. Then, contrary to Applicant’s preamble “establishing a secured direct link by an access point”, it appears to the examiner the secured direct link being established independence of an access point in the recited claim.

Third, for the sake of the argument, even if “establishing a secured direct link by an access point” given its patentable weight, the examiner acknowledges the Applicant’s statement **“With regard to involvement of an access point, Wentlink discloses that the first and second stations may communicate “directly” via an access point: [0084]...In this case, they typically need the access point to relay their traffic because direct transmission is not possible”** (See page 15 of the remark).

Fourth, the Applicant argues “Wentink establish secure direct link between mobile stations **without active intervention** of the access point”, the examiner respectfully points out is “with active intervention of the access point” is being recited in the claims of the instant application?

D. The Applicant argues on page 13 of the remark, “In contrast to Whelan....accordingly, the pending claims permit establishing a secure direct link between stations in a WLAN by an access point even when the stations do not have a common pre-shared key”, the examiner respectfully disagrees.

The examiner respectfully points out **“establishing a secure direct link between stations in a WLAN by an access point even when the stations do not**

have a common pre-shared key" is not recited in any claims of the instant application. For the sake of argument, even this limitation is disclosed in the original specification, the Applicant is respectfully reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F. 2d 1181, 26 USPQ 2d 1057 (Fed. Cir. 1993).

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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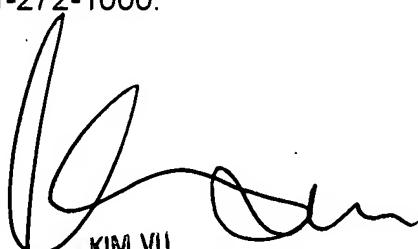
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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5 July 2007
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